MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

Federal Operating Permit Number: 027000935

For: AFG Industries, Inc.

Facility: AFG Industries, Inc.

Issued Pursuant to MDAQMD Regulation XII Effective Date: March 17, 2004

This Federal Operating Permit Expires On: March 17, 2009

Issued By: Charles L. Fryxell Air Pollution Control Officer

14306 PARK AVENUE, VICTORVILLE, CALIFORNIA 92392 PHONE (760) 245-1661 FAX (760) 245-2022

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PART I INTRODUCTORY INFORMATION

FACILITY IDENTIFYING INFORMATION:

Owner/Company Name: AFG INDUSTRIES, INC

<u>Facility Names:</u> AFG INDUSTRIES, INC

<u>Facility Location:</u> 17300 Silica Dr

Victorville, CA 92392

Mailing Address: AFG INDUSTRIES, INC

17300 Silica Dr

Victorville, CA 92392

MDAQMD Federal Operating Permit Number: 027000935

MDAQMD Company Number: 0270

MDAQMD Facility Number: 00935

Responsible Official: Don Frawley Title: Plant Manager

AFG INDUSTRIES, INC

Phone Number: (760) 241-2237

Facility "Site" Contacts: Jerry Kinkade, Materials Manager

Patrick A. Carnie, Environmental Engineer

Phone/Fax/Email: (760) 241-2237

Facility "Off Site" Contacts: Oluwole A. Anjonrin-Ohu,

Corporate Environmental Compliance Manager

1400 Lincoln Street, Kingsport, Tn. 37662

Phone Number: Direct Dial (423) 229-7487

Mobile (423) 914-2470

Nature of Business: Glass Manufacturing

SIC Code: 3211

Facility Location: UTM (Km) 473.69E / 3815.28N

DESCRIPTION OF FACILITY:

AFG is a flat (float) glass manufacturing facility. A mix batch containing sand and additives is charged to a natural gas fired glass-melting furnace where it is melted, refined & temperature conditioned along the way. Controlled quantities of molten glass are discharged onto the molten tin bath, with a controlled atmosphere of N_2 and H_2 where the glass is molded to any desired thickness & further temperature conditioned. The glass ribbon is lifted out of the tin bath by a set of driven rolls, which transports the glass ribbon through the annealing lehr, and then it is systematically heated electrically, cooled by a system of atmospheric air conducing tube heat exchangers and direct atmospheric air. The annealing lehr is after the float bath where the glass is slowly cooled to handling temperature. The lehr leads to the cold end driven rolls where the glass is inspected, cut and packed into shipping containers.

The glass-melting furnace is fitted with an electrostatic precipitator control device, SO₂ scrubber control device and a thermal DeNOx control device.

The glass-melting furnace is fitted with a Continuous Emissions Monitoring System (CEMS) as follows:

- A. To measure stack gas concentrations of oxygen, oxides of nitrogen and sulfur dioxide, specifications shall comply with USEPA specifications in 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specification 2;
- B. The mass emissions rates of sulfur dioxide and oxides of nitrogen shall be computed using USEPA, 40 CFR 60, Appendix A, method 19. The rates shall be computed based on the concentrations measured above, the fuel flow rate and the gross calorific value of the fuel. The averaging time shall not exceed 20 minutes.
- C. CEMS' Certification Test shall be conducted annually and Gas Cylinder audits shall be conducted in each of the remaining three quarters.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]
[Rule 204 - Permit Conditions; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
[Rule 1157 - Boilers and Process Heaters; Version in SIP = Current, 40 CFR 52.220(c)(207)(I)(D)(3) - 5/19/97 61 FR 56470, effective 11/1/96]

MDAQMD PERMIT LISTING; SEE FOLLOWING TABLE:

Permit #	Permit Status	Permit Type	Permit Description.
B001726	PTO	Basic	FLOAT GLASS MANUFACTURING LINE
B001727	PTO	Basic	CULLET RETURN SYSTEM
B001728	PTO	Basic	SEAMING SYSTEM
B001973	PTO	Basic	RAW MATERIAL BLENDING SYSTEM FOR FLOAT GLASS FURNACE
B002460	PTO	Basic	ELECTROSTATIC PRECIPITATOR DUST RECYCLING SYSTEM
B002791	PTO	Basic	RAW MATERIAL RECEIVING/STORING SYSTEM SERVING THE TRUCK AND RAILROAD UNLOADING
B005352	PTO	Basic	DOUBLE ROW SEAMING SYSTEM
B008012	ATC	Basic	IC ENGINE GENERATOR, MIXED FUEL
C001725		Air Pollution Control Device	BAGHOUSE (BATCH PLANT UNLOADING AREA)

Permit #	Permit Status	Permit Type	Permit Description.
C001796	PTO	Air Pollution Control Device	ELECTROSTATIC PRECIPITATOR
C001835	PTO	Air Pollution Control Device	BAGHOUSE - UNLOADING ELEVATOR TOP
C001836	PTO	Air Pollution Control Device	BAGHOUSE - TWO SAND SILOS
C001837	PTO	Air Pollution Control Device	BAGHOUSE - TWO SODA ASH SILOS
C001838	PTO	Air Pollution Control Device	BAGHOUSE - DOLOMITE SILO
C001839	PTO	Air Pollution Control Device	BAGHOUSE (LIMESTONE SILO)
C001840	PTO	Air Pollution Control Device	BAGHOUSE - SALT CAKE SILO
C001841	РТО	Air Pollution Control Device	BAGHOUSE - EMERGENCY SAND SILO
C001842	РТО	Air Pollution Control Device	BAGHOUSE - WEIGH BATCH CONVEYOR
C001843	PTO	Air Pollution Control Device	BAGHOUSE - WEIGH BATCH ELEVATOR TOP
C001844	РТО	Air Pollution Control Device	BAGHOUSE - BAD BATCH HOPPER
C001845	PTO	Air Pollution Control Device	BAGHOUSE - CULLET BIN
C001846	PTO	Air Pollution Control Device	BAGHOUSE - CULLET ELEVATOR
C001847	PTO	Air Pollution Control Device	BAGHOUSE - MIXED BATCH ELEVATOR LOADER
C001848	PTO	Air Pollution Control Device	BAGHOUSE - MIXED BATCH ELEVATOR TOP
C001849	РТО	Air Pollution Control Device	BAGHOUSE - FURNACE BIN
C001850	PTO	Air Pollution Control Device	BAGHOUSE (CHARCOAL BIN)
C001851	PTO	Air Pollution Control Device	BAGHOUSE (ROUGE BIN)
C001913	PTO	Air Pollution Control Device	BAGHOUSE - CULLET RETURN SYSTEM
C001914	PTO	Air Pollution Control Device	BAGHOUSE - TEMPERED SAFETY GLASS LINE
C002792	PTO	Air Pollution Control Device	SCRUBBER - DRY SPRAY FOR SULFUR DIOXIDE CONTROLLING THE FLOAT GLASS FURNACE (DISTRICT PERMIT B001726)
C002793	РТО	Air Pollution	BAGHOUSE - ESP DUST RECYCLING SYSTEM BIN NO. 10

Permit #	Permit Status	Permit Type	Permit Description.
		Control Device	
C002794	PTO	Air Pollution Control Device	BAGHOUSE - ESP DUST RECYCLING SYSTEM BIN NO. 11
C004809	PTO	Air Pollution Control Device	BAGHOUSE - FLOAT GLASS MFG LINE (OXY DRY)
C005355	РТО	Air Pollution Control Device	BAGHOUSE FOR DOUBLE ROW SEAMERS
C008034	ATC	Air Pollution Control Device	SELECTIVE CATALYTIC REDUCTION UNIT
E001729	РТО	Emergency I C E	EMERGENCY IC ENGINE DUAL FUEL

PART II

FACILITYWIDE APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS

- A. REQUIREMENTS APPLICABLE TO ENTIRE FACILITY AND EQUIPMENT:
- 1. A permit is required to operate this facility.

 [Rule 203 Permit to Operate; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- The equipment at this facility shall not be operated contrary to the conditions specified in the District permit to operate.
 [Rule 203 Permit to Operate; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 3. The Air Pollution Control Officer may impose written conditions on any permit. [Rule 204 *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- Commencing work or operation under a permit shall be deemed acceptance of all the conditions so specified.

 [Rule 204 *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 5. Posting of the permit to operate is required on or near the equipment or as otherwise approved by the APCO/District.

 [Rule 206 Posting of Permit to Operate; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 6. Owner/Operator shall not willfully deface, alter, forge or falsify any permit issued under District rules.

 [Rule 207 *Altering or Falsifying of Permit*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) and 52.220(c)(31)(vi)(C) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 7. Permits are not transferable.
 [Rule 209 *Transfer and Voiding of Permit*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 8. The equipment at this facility shall not require a District permit or be listed on the Title V permit if such equipment is listed in Rule 219 and meets the applicable criteria contained in Rule 219 (B). However, any exempted insignificant activities/equipment are still subject to all applicable facility-wide requirements.

[SIP Pending: Rule 219 - Equipment Not Requiring a Written Permit as Amended 12/21/94; Prior version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237]

- 9. The Owner/Operator of this facility shall obtain a Federal Operating Permit for operation of this facility.
 - [Rule 221 Federal Operating Permit Requirement; Version in SIP = Current, 40 CFR 52.220(c)(216)(i)(A)(2) 02/05/96 61 FR 4217]
- 10. Owner/Operator shall pay all applicable MDAQMD permit fees. [Rule 301 *Permit Fees;* Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
- 11. Owner/Operator shall pay all applicable MDAQMD Title V permit fees.

 [Rule 312 Fees for Federal Operating Permits; Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
- 12. Stack and point source visible emissions from this facility, of any air contaminant (including smoke) into the atmosphere, shall not equal or exceed Ringelmann No. 1 for a period or periods aggregating more than three minutes in any one hour:
 - a. While any unit is fired on Public Utilities Commission grade natural gas, Periodic Monitoring for combustion equipment is not required to validate compliance with the Rule 401 Visible Emissions limit. However, the Owner/Operator shall comply with the recordkeeping requirements stipulated elsewhere in this permit regarding the logging of fuel type, amount and suppliers certification information.
 - b. While any unit is fired on diesel fuel, Periodic Monitoring, in addition to required recordkeeping, <u>is</u> required to validate compliance with Rule 401 Visible Emissions limit as indicated below:
 - i. Reciprocating engines equal or greater than 1000 horsepower, firing on only diesel with no restrictions on operation a visible emissions inspection is required every three (3) months.
 - ii. Diesel Standby and emergency reciprocating engines using California low sulfur fuels require no additional monitoring for opacity.
 - iii. Diesel/Distillate-Fueled Boilers firing on California low sulfur fuels require a visible emissions inspection after every 1 million gallons diesel combusted, to be counted cumulatively over a 5 year period.
 - iv. On any of the above, if a visible emissions inspection documents opacity, an EPA Method 9 "Visible Emissions Evaluation" shall be completed within 3 working days, or during the next scheduled operating period if the unit ceases firing on diesel/distillate within the 3 working day time frame.

[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77] [Rule 401 - *Visible Emissions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77] [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

13. Owner/Operator shall not burn any PUC quality natural gas fuel at this facility containing sulfur compounds in excess of 800 ppm calculated as hydrogen sulfide at standard conditions, or any diesel fuel having a sulfur content in excess of 0.5 percent by weight. Compliance with Rule 431 sulfur limit for PUC quality natural gas fuel shall be by the exclusive use of utility grade/pipeline quality natural gas. Records of natural gas supplier fuel quality/sulfur content limit shall be kept on-site for review by District, state or federal personnel at any time. Compliance with Rule 431 sulfur limit for diesel fuel shall be determined by keeping records of the diesel fuel supplier's fuel analysis guarantee showing fuel sulfur content. The sulfur content of diesel fuel shall be

determined by use of ASTM method D 2622-82, or (ASTM method D 2880-71, or equivalent). [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements] [Rule 431 - *Sulfur Content of Fuels*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 - 43 FR 40011; Current Rule Version = 07/25/77]

- Emissions of fugitive dust from any transport, handling, construction or storage activity at this facility shall not be visible in the atmosphere beyond the property line of the facility.
 [Rule 403 Fugitive Dust; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
- 15. Owner/Operator shall comply with the applicable requirements of Rule 403.2 unless an "Alternative PM₁₀ Control Plan" (ACP) pursuant to Rule 403.2(G) has been approved. Construction/Demolition activities shall comply with a District approved Dust Control Plan. [SIP Pending: Rule 403.2 Fugitive Dust Control for the Mojave Desert Planning Area as adopted 7/22/96 and SIP submitted 10/18/96] [The SIP-pending version is not federally enforceable. Please see Part VI Permit Shield for more details.]
- 16. Owner/Operator shall not discharge into the atmosphere from this facility, particulate matter except liquid sulfur compounds, in excess of the concentration at standard conditions, shown in Rule 404, Table 404 (a).
 - (a) Where the volume discharged is between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.
 - (b) This condition shall not apply to emissions resulting from the combustion of diesel or PUC quality natural gas fuels in steam generators or gas turbines.
 - (c) For the purposes of this condition, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

[Rule 404 - *Particulate Matter Concentration*; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]

- 17. Owner/Operator shall not discharge into the atmosphere from this facility, solid particulate matter including lead and lead compounds in excess of the rate shown in Rule 405, Table 405(a).
 - (a) Where the process weight per hour is between figures listed in the table, the exact weight of permitted discharge shall be determined by linear interpolation.
 - (b) For the purposes of this condition emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

[Rule 405 - *Solid Particulate Matter, Weight*; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]

- 18. Owner/Operator shall not discharge into the atmosphere from this facility, from any single source of emissions whatsoever, Sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO₂) greater than or equal to 500 ppm by volume. [40 CFR 70.6 (a)(3)(i)(B) Periodic Monitoring Requirements] [Rule 406 *Specific Contaminants*; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]
- 19. Owner/Operator shall not discharge into the atmosphere from this facility, carbon monoxide (CO) exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.
 - (a) The provisions of this condition shall not apply to emissions from internal combustion

engines.

[Rule 407 - Liquid and Gaseous Air Contaminants; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

- 20. Owner/Operator shall not build, erect, install or use any equipment at this facility, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the Health and Safety Code or of District Rules.
 - (a) This condition shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code, or of District Rule 402.

[Rule 408 - *Circumvention*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

21. Owner/Operator shall not discharge into the atmosphere from this facility from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions averaged over a minimum of 25 consecutive minutes.

[Rule 409 - *Combustion Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

- 22. APCO in his/her discretion, may refrain from enforcement action against an Owner/Operator of any equipment which has violated a technology-based emission limitation, including but not limited to conditions contained in any permit issued by the District establishing such emission limitation, provided that a Breakdown has occurred and:
 - (a) Any breakdown which results in emissions exceeding a technology-based emission limitation is reported to the District within one hour of such breakdown or within one hour of the time a person knew or reasonably should have known of the occurrence of such breakdown; and
 - (b) An estimate of the repair time is provided to the District as soon as possible after the report of the breakdown; and
 - (c) All reasonable steps are immediately taken to minimize the levels of emissions and to correct the condition leading to the excess emissions.
 - (d) The equipment is operated only until the end of a cycle or twenty-four (24) hours, whichever is sooner, at which time it shall be shut down for repairs unless a petition for an emergency variance has been filed with the clerk of the Hearing Board in accordance with Regulation V.
 - (e) If the breakdown occurs outside normal District working hours the intent to file an emergency variance shall be transmitted to the District in a form and manner prescribed by the Air Pollution Control Officer.

[SIP Pending: Rule 430 - Breakdown Provisions as amended 12/21/94 and submitted 02/24/95]

- Owner/Operator of this facility shall not discharge organic materials into the atmosphere from equipment in which organic solvents or materials containing organic solvents are used, unless such emissions have been reduced by at least 85% or to the following:
 - Organic materials that come into contact with flame or are baked, heat cured or heat polymerized, are limited to 1.4 kilograms (3.1 pounds) per hour not to exceed 6.5 kilograms (14.3 pounds) per day.
 - (b) Organic materials emitted into the atmosphere from the use of photochemically reactive solvents are limited to 3.6 kilograms (7.9 pounds) per hour, not to exceed 18 kilograms (39.6 pounds) per day, except as provided in Rule 442, subsection (a)(1). All organic materials

- emitted for a drying period of 12 hours following their application shall be included in this limit.
- (c) Organic materials emitted into the atmosphere from the use of non-photochemically reactive solvents are limited to 36.8 kilograms (81 pounds) per hour not to exceed 272 kilograms (600 pounds) per day. All organic materials emitted for a drying period of 12 hours following their application shall be included in this limit.
- (d) The provisions of this condition shall not apply to the manufacture of organic solvents, or the transport or storage of organic solvents, or the transport or storage of materials containing organic solvents.
- (e) The provisions of this condition shall not apply to the use of equipment for which other requirements are specified by Rules 461, 462, 463, and 464 or which are exempt from air pollution control requirements by said rules.

[Rule 442 - *Usage of Solvents*; Version in SIP = Current, 40 CFR 52.220(c)(51)(xii)(B) - 06/09/82 47 FR 25013]

- 24. Owner/Operator of this facility shall comply with the Organic Solvent Degreasing Operations requirements of Rule 1104 when engaged in wipe cleaning, cold solvent cleaning and/or vapor cleaning (degreasing) operations for metal/non-metal parts/products. These requirements are listed as follows:
 - (a) All degreasers shall be equipped with a cover which reduces solvent evaporation and minimizes disturbing the vapor zone.
 - (b) A permanent, conspicuous label summarizing the applicable operating requirements contained in Rule 1104. In lieu of a label, operating instructions may be posted near the degreaser where the operators can access the proper operating requirements of this rule.
 - (c) Cold Solvent Degreasers Freeboard Requirements:
 - (i) Cold solvent degreasers using only low volatility solvents which are not agitated, shall operate with a freeboard height of not less than 6 inches.
 - (ii) Cold solvent degreasers using only low volatility solvents may operate with a freeboard ratio equal to or greater than 0.50 when the cold solvent degreaser has a cover which remains closed during the cleaning operation.
 - (iii) Any cold solvent degreasers using solvent which is agitated, or heated above 50°C (120°F) shall operate with a freeboard ratio equal to or greater than 0.75.
 - (iv) A water cover may be used as an acceptable control method to meet the freeboard requirements, when the solvent is insoluble in water and has a specific gravity greater than 1.

(d) Cold Solvent Degreasers - Cover Requirements:

(i) Cold solvent degreasers using high volatility solvent shall have a cover that is a sliding, rolling or guillotine (bi-parting) type which is designed to easily open and close without disturbing the vapor zone.

(e) Cold Solvent Degreasers - Solvent Level Identification:

(ii) A permanent, conspicuous mark locating the maximum allowable solvent level conforming to the applicable freeboard requirements.

(f) All Degreasers shall comply with the following operating requirements:

- (i) Any solvent cleaning equipment and any emission control device shall be operated and maintained in strict accord with the recommendations of the manufacturer.
- (ii) Degreasers shall not be operating with any detectable solvent leaks.
- (iii) All solvent, including waste solvent and waste solvent residues, shall be stored in closed containers at all times. All containers for any solvent(s)

- shall have a label indicating the name of the solvent/material they contain.
- (iv) Waste solvent and any residues shall be disposed of by one of the following methods: a commercial waste solvent reclamation service licensed by the State of California; **or** a federally or state licensed facility to treat, store or dispose of such waste; **or** the originating facility may recycle the waste solvent and materials in conformance with requirements of Section 25143.2 of the California Health and Safety Code.
- (v) Degreasers shall be covered to prevent fugitive leaks of vapors, except when processing work or to perform maintenance.
- (vi) Solvent carry-out shall be minimized by the following methods:
 - a) Rack workload arranged to promote complete drainage
 - b) Limit the vertical speed of the power hoist to 3.3 meters per minute (11 ft/min) or less when such a hoist is used.
 - c) Retain the workload inside of the vapor zone until condensation ceases.
 - d) Tip out any pools of solvent remaining on the cleaned parts before removing them from the degreaser if the degreasers are operated manually.
 - e) Do not remove parts from the degreaser until the parts are visually dry and not dripping/leaking solvent. (This does not apply to an emulsion cleaner workload that is rinsed with water within the degreaser immediately after cleaning.)
- (vii) The cleaning of porous or absorbent materials such as cloth, leather, wood or rope is prohibited.
- (viii) Except for sealed chamber degreasers, all solvent agitation shall be by either pump recirculation, a mixer, or ultrasonics.
- (ix) The solvent spray system shall be used in a manner such that liquid solvent does not splash outside of the container. The solvent spray shall be a continuous stream, not atomized or shower type, <u>unless</u>, the spray is conducted in a totally enclosed space, separated from the environment.
- (x) For those degreasers equipped with a water separator, no solvent shall be visually detectable in the water in the separator.
- (xi) Wipe cleaning materials containing solvent shall be kept in closed containers at all times, except during use.
- (xii) A degreaser shall be located so as to minimize drafts being directed across the cleaning equipment, the exposed solvent surface, or the top surface of the vapor blanket.
- (xiii) A method for draining cleaned material, such as a drying rack suspended above the solvent and within the freeboard area, shall be used so that the drained solvent is returned to the degreaser or container.

(g) Rule 442 Applicability:

Any solvent using operation or facility which is <u>not</u> subject to the source-specific Rule 1104 shall comply with the provisions of Rule 442. Any solvent using operation or facility which is exempt from all or a portion of the VOC limits, equipment limits or the operational limits of Rule 1104 shall be subject to the applicable provisions of Rule 442.

(h) <u>Solvent Usage Records:</u>

Owner/Operator subject to Rule 1104 or claiming any exemption under Rule 1104, Section (E), shall comply with the following requirements:

(1) Maintain and have available during an inspection, a current list of solvents in use at

the facility which provides all of the data necessary to evaluate compliance. including the following information separately for each degreaser, as applicable:

- (i) product name(s) used in the degreaser, and
- (ii) the mix ratio of solvent compounds mixtures of solvents are used, and
- VOC content of solvent or mixture of compounds as used, and (iii)
- the total volume of the solvent(s) used for the facility, on a monthly basis, (iv) and
- the name and total volume applied of wipe cleaning solvent(s) used, on a (v) monthly basis.
- (2) Additionally, for any degreaser utilizing an add-on emission control device/system as a means of complying with provisions of Rule 1104 shall, on a monthly basis, maintain records of key system operating and maintenance data. Such data is recorded for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.
- Documentation shall be maintained on site of the disposal or on site recycling of any (3) waste solvent or residues.
- (4) Records shall be retained (at facility) and available for inspection by District, state or federal personnel for the previous 5 year period as required by this Title V / Federal Operating Permit.

[Rule 1104 - Organic Solvent Degreasing Operations; Version in SIP = Current, 40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962, effective 11/30/94]

25. Owner/Operator's use of Architectural Coatings at this facility shall comply with the requirements of Rule 1113, including the VOC limits specified in Rule 1113, part C, Table of Standards, as listed below:

Table of Standards

<u>COATING:</u>	VOC(g/l)
Below Ground Wood Preservatives	600
Bond Breakers	350
Concrete Curing Compounds	350
Dry-Fog Coatings	400
Fire Retardant Coatings	
Clear	650
Pigmented	350
Flat Coatings	250
General Primers, Sealers and Undercoaters	350
Graphic Arts (Sign) Coatings	500
Industrial Maintenance Coatings	
Anti-Graffiti Coatings	600
General Coatings	420
High Temperature Coatings	550
Lacquer	680
Magnesite Cement Coatings	600
Mastic Texture Coatings	300
Metallic-Pigmented Coatings	500
Multi-Color Coatings	580
Opaque Stains	350
Opaque Wood Preservatives	350
Pretreatment (Wash) Primer	780

Quick Dry Enamels	400
Quick Dry Primers, Sealers and Undercoaters	450
Roof Coatings	300
Sanding Sealers	550
Semi-transparent Stains	350
Semi-transparent and Clear Wood Preservatives	350
Shellac	
Clear	730
Pigmented	550
Swimming Pool Coatings	650
Swimming Pool Repair and Maintenance Coatings	650
Traffic Paints	250
For Other Surfaces	250
Black Traffic Coatings	650
Varnish	350
Waterproof Sealers	400
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[Rule 1113 - Architectural Coatings; Version in SIP = 02/20/79, 40 CFR 52.220(c)(51)(xii)(B)-06/09/82 47 FR 25013; Current Rule Version = 09/02/92]

- 26. Owner/Operator shall apply coatings to metal parts and products subject to the provisions of Rule 1115 by using equipment properly operated according to manufacturer's suggested guidelines using one or more of the following methods:
 - Electrostatic attraction. (a)
 - High Volume Low Pressure (HVLP) spray equipment. (b)
 - Dip coat. (c)
 - (d) Hand Application Methods.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

27. Owner/Operator shall not apply to metal parts and products any coatings, including any VOCcontaining materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with a capture and control system Combined Efficiency of at least 85 percent:

LIMITS (Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds)

<u>Coating</u>	Air Dried		Bak	Baked	
	g/L	(lb/gal)	g/L	(lb/gal)	
General	420	(3.5)	360	(3.0)	
Military Specification	420	(3.5)	360	(3.0)	
Etching Filler	420	(3.5)	420	(3.5)	
Solar-Absorbent	420	(3.5)	360	(3.0)	
Heat-Resistant	420	(3.5)	360	(3.0)	
High-Gloss	420	(3.5)	360	(3.0)	
Extreme High-Gloss	420	(3.5)	360	(3.0)	
Metallic	420	(3.5)	420	(3.5)	
Extreme Performance	420	(3.5)	360	(3.0)	
Prefabricated Architectural					
Component	420	(3.5)	275	(2.3)	

Touch Up	420	(3.5)	360	(3.0)
Repair	420	(3.5)	360	(3.0)
Silicone-Release	420	(3.5)	420	(3.5)
High Performance				
Architectural	420	(3.5)	420	(3.5)
Camouflage	420	(3.5)	420	(3.5)
Vacuum-Metalizing	420	(3.5)	420	(3.5)
Mold-Seal	420	(3.5)	420	(3.5)
High-Temperature	420	(3.5)	420	(3.5)
Electric-Insulating Varnish	420	(3.5)	420	(3.5)
Pan-Backing	420	(3.5)	420	(3.5)
Pretreatment Wash Primer	420	(3.5)	420	(3.5)
Clear Coating	520	(4.3)	520	(4.3)

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

28. The provisions of Part II, Condition A.26 shall not apply to the application of touch-up coatings, repair coatings, textured coatings, metallic coatings which have a metallic content of more than 30 grams per liter, mold-seal coatings, and to facilities that use less than three gallons of such coatings per day, as applied, including any VOC-containing materials added to the original coatings as supplied by the manufacturer.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

- 29. The provisions of Part II, Conditions A.26 and A.27 shall not apply to:
 - (a) A facility which uses a total of less than one gallon of coating in any one day, including any VOC-containing materials added to the original coating as supplied by the manufacturer.
 - (b) Total noncompliant coating use per facility that does not exceed 55 gallons per year.
 - (c) Stencil coatings.
 - (d) Safety-indicating coatings.
 - (e) Magnetic data storage disk coatings.
 - (f) Solid-film lubricants.
 - (g) Adhesives.
 - (h) The coating of motor vehicle bodies at motor vehicle rework facilities.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

- 30. Owner/Operator of any facility classified as exempt or claiming to be exempt under Rule 1115, shall meet the record keeping requirements of Rule 1115 so as to be able to certify the exemption status. [Rule 1115 *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) 12/23/97 62 FR 67002, effective 2/23/98]
- 31. Owner/Operator of any coating, coating operation, or facility which is exempt from all or a portion of the VOC limits of Rule 1115 shall comply with the provisions of Rule 442 unless compliance with the limits specified in Rule 1115 are achieved.
 - [Rule 1115 Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) 12/23/97 62 FR 67002, effective 2/23/98]
- 32. Owner/Operator shall comply with the following requirements when using solvent for surface

preparation, cleanup, and paint removal, including paint spray equipment:

- (a) VOC-containing materials for surface preparation shall not have a VOC content in excess of 200 grams of VOC per liter of material (1.67 pounds per gallon); or
 - (ii) VOC-containing materials has an initial boiling point of 190 deg C (374 deg F) or greater; or
 - (iii) VOC-containing materials has a total VOC vapor pressure of 20 mm Hg or less, at 20 deg C (68 deg F).
- (b) Owner/Operator shall use closed, nonabsorbent containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.
- (c) Owner/Operator shall store fresh or spent solvent in closed containers.
- Owner/Operator shall not use organic compounds for the cleanup of spray equipment including paint lines unless an enclosed system is used for cleanup. The system shall enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures. Equipment used shall minimize the evaporation of organic compounds to the atmosphere.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

- 33. Owner/Operator shall not specify the use in the District of any coating to be applied to any metal parts and products subject to the provisions of this Rule 1115 that does not meet the limits and requirements of Rule 1115. This requirement applies to all written or oral contracts.

 [Rule 1115 Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) 12/23/97 62 FR 67002, effective 2/23/98]
- 34. Owner/Operator subject to Part II, Section A, conditions A.26 through A.39 shall comply with the following requirements:
 - (a) Owner/Operator shall maintain and have available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:
 - 1. coating, catalyst, and reducer used.
 - 2. mix ratio of components used.
 - 3. VOC content of coating as applied.
 - 4. quantity of Group II exempt compounds used.
 - (b) Owner/Operator shall maintain records on a daily basis including:
 - 1. coating and mix ratio of components used in the coating; and
 - 2. quantity of each coating applied.
 - (c) Owner/Operator shall maintain records on a daily basis showing the type and amount of solvent used for cleanup, surface preparation, and paint removal.
 - (d) Records shall be retained (at facility) and available for inspection by District, state or federal personnel for the previous 5 year period as required by this Title V / Federal Operating Permit.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

35. Owner/Operator shall obtain, and maintain records from the coating/ paint manufacturer regarding the VOC content of the coating/paint and any solvents contained therein.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

36. The Owner/Operator of any facility electing to engage in the mixing of coatings/ paints or solvents shall be required to obtain and maintain an analysis of the mixture from an independent testing laboratory.

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98] [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

37. A violation of the limits contained in Part II, Conditions A.26 through A.39 as determined by any one of Part II, Conditions 38 and 39 *Reference Method Tests* shall constitute a violation of applicable Part II conditions.

[Rule 1114 - *Wood Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(244)(i)(C)(1) - 08/18/98 63 FR 44132]

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

- 38. The following specified *Reference Method Tests* shall be used to determine compliance with the provisions of Part II, Conditions A.26 through A.39, as required by Rule 1114:
 - (a) Samples of coatings and solvent as specified in Part II, Conditions A.26 through A.39 shall be analyzed as prescribed by EPA Reference Method 24 for VOC content (without correction for exempt compounds) and ASTM D4457-85, or ARB Method 432 for determination of emissions of exempt compounds. Perfluorocarbon compounds shall be assumed to be absent from a product or process unless a manufacturer or facility Owner/Operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.
 - (b) Emissions of volatile organic compounds as specified in Part II, Conditions A.26 through A.39 shall be measured as prescribed by EPA Reference Method 25 for determination of VOC emissions (without correction for exempt compounds) and EPA Method 18, or ARB Method 422 for measuring emission of exempt compounds.
 - (c) Transfer efficiency as required by Part II, Conditions A.26 through A.39 shall be determined by South Coast Air Quality Management District Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989.
 - (d) Overall abatement efficiency is the product of capture efficiency as determined by procedures described in 55 FR 26865, 29 June, 1990, and abatement device efficiency.

[Rule 1114 - *Wood Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(244)(i)(C)(1) - 08/18/98 63 FR 44132] [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

- 39. The following specified *Reference Method Tests* shall be used to determine compliance with the provisions of Part II, Conditions A.26 through A.39, as required by Rule 1115:
 - (a) The VOC content of coatings and solvents, as specified in subsections (C)(2) and (C)(4)(c)(i), shall be analyzed as prescribed by USEPA Reference Method 24 for VOC content (without correction for exempt compounds) and ASTM D4457-85, or CARB Method 432, for determination of emissions of exempt compounds. Perfluorocarbon compounds shall be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.
 - (b) Determination of the initial boiling point of liquid containing VOC, subject to subsection

- (C)(4)(c)(ii), shall be conducted in accordance with ASTM D1078-86.
- (c) Calculation of total VOC vapor pressure for materials subject to subsection (C)(4)(c)(iii) shall be conducted in accordance with ASTM D2879-86. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM D3792-91 and D4457-85 and shall be used to calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM D2879-86 shall be corrected for partial pressure of water and exempt compounds.
- (d) Measurement of solvent losses from alternative application cleaning equipment subject to (C)(4)(b)(iii) shall be conducted in accordance with the South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" (11/1/94).
- (e) Measurement of acid content of a substance shall be determined by ASTM D1613-85.
- (f) Measurement of metal content of coatings shall be determined in accordance with South Coast Air Quality Management District's "Laboratory Methods of Analysis for Enforcement Samples" manual, "Determination of Percent Metal in Metallic Coatings by Spectrographic Method, Method 311".
- (g) Capture Efficiency shall be determined according to USEPA's technical document, "Guidelines for Determining Capture Efficiency" (1/9/95).
- (h) The control efficiency of the Control Device shall be determined according to USEPA Test Methods 25, 25A or 25B for measuring the total gaseous organic concentrations at the inlet and outlet of the emissions Control Device, as contained in 40 CFR Part 60, Appendix A. USEPA Test Method 18 or CARB Method 422 shall be used to determine emissions of exempt compounds.
- (i) Measurement of solids content by weight of a substance shall be conducted in accordance with ASTM D1475-60.
- (j) Alternative test methods may be used upon obtaining the approval of the APCO, CARB and USEPA.
- (k) Demonstration of Transfer Efficiency of alternative application methods subject to subsection (C)(1)(a)(v) shall be conducted in accordance with South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (5/24/89).

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98] [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

40. Owner/Operator shall comply with all requirements of the District's Title V Program, MDAQMD Rules 1200 through 1210 (Regulation XII - Federal Operating Permits).
 [Applicable via Title V Program interim approval 02/05/96 61 FR 4217]

B. <u>FACILITYWIDE MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS:</u>

- 1. Any data and records generated and/or kept pursuant to the requirements in this federal operating permit (Title 5 Permit) shall be kept current and on site for a minimum of five (5) years from the date generated. Any records, data or logs shall be supplied to District, state or federal personnel upon request.

 [40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)].
- 2. Any Compliance/Performance testing required by this Federal Operating Permit shall follow the administrative procedures contained in the District's <u>Compliance Test</u> <u>Procedural Manual</u>. Any required annual Compliance and/or Performance Testing shall be accomplished by obtaining advance written approval from the District pursuant to the District's <u>Compliance Test Procedural Manual</u>. All emission determinations shall be made as stipulated in the <u>Written Test Protocol</u> accepted by the District. When proposed testing involves the same procedures followed in prior District approved testing, then the previously approved <u>Written Test Protocol</u> may be used with District concurrence. [Rule 204 <u>Permit Conditions</u>; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 3. Owner/Operator of permit units subject to Comprehensive Emissions Inventory Report / Annual Emissions Determinations for District, State, and Federal required Emission Inventories shall monitor and record the following for each unit:
 - (a) The cumulative annual usage of each fuel type. The cumulative annual usage of each fuel type shall be monitored from utility service meters, purchase or tank fill records.
 - (b) Fuel suppliers' fuel analysis certification/guarantee including fuel sulfur content shall be kept on site and available for inspection by District, state or federal personnel upon request. The sulfur content of diesel fuel shall be determined by use of ASTM method D2622-82, or (ASTM method D 2880-71, or equivalent). Vendor data meeting this requirement is sufficient.

[40 CFR 70.6(a)(3)(B) – Periodic Monitoring Requirements]
[Rule 204 - Permit Conditions; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
[Federal Clean Air Act: §110(a)(2)(F, K & J); §112; §172(c)(3); §182(a)(3)(A & B); §187(a)(5); § 301(a)] and in California Clean Air Act, Health and Safety Code §§39607 and §§44300 et seq.]

- 4 (a). Owner/Operator shall submit Compliance Certifications as prescribed by Rule 1203(F)(1) and Rule 1208. Compliance Certifications by a Responsible Official shall certify the truth, accuracy and completeness of the document submitted and contain a statement to the effect that the certification is based upon information and belief, formed after a reasonable inquiry; the statements and information in the document are true, accurate, and complete.
 - [40 CFR 70.6(c)(5)(i); Rule 1203(D)(1)(g)(vii); Rule 1203(F)(1); Rule 1208]
- (b). Owner/Operator shall include in any Compliance Certification the methods used for

- monitoring such compliance. [40 CFR 70.6(c)(5)(ii); Rule 1203(D)(1)(g)(viii)]
- (c). Owner/Operator when submitting any Compliance Certification(s) to the MDAQMD shall contemporaneously submit such Compliance Certification(s) to USEPA. [40 CFR 70.6(5)(iii); Rule 1203(D)(g)(ix)]
- (d). Owner/Operator shall comply with any additional certification requirements as specified in 42 U.S.C §7414(a)(3), Recordkeeping, Inspections, Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)), or in regulations promulgated thereunder. [Rule 1203 (D)(1)(g)(x)]
- (e). On an <u>annual</u> basis, of any given year, Owner/Operator shall submit a <u>Compliance Certification Report</u>, within 30 days of the anniversary of the date of the issuance or renewal of the Federal Operating Permit, to the APCO/District pursuant to District Rule 1203. Each report shall be certified to be true, accurate, and complete by "The Responsible Official" and a copy of this annual report shall also be contemporaneously submitted to the EPA Region IX Administrator.

 [40 CFR 72.90.a and Rule 1203 (D)(1)(g)(v x)]
- 5. Owner/Operator shall submit, on a <u>semi-annual</u> basis, a <u>Monitoring Report</u> to the APCO/District, with a copy to the EPA Region IX Administrator. Each <u>Monitoring Report</u> shall be submitted no later than 60 days after the midpoint (six months after the Title 5 Permit month & day issue date) of the Title 5 Permit anniversary date of any given year. This <u>Monitoring Report</u> shall be certified to be true, accurate, and complete by "The Responsible Official" and shall include the following information and/or data:
 - (a) Summary of deviations from any federally-enforceable requirement in this permit.
 - (b) Summary of all emissions monitoring and analysis methods required by any Applicable Requirement / federally enforceable requirement.
 - (c) Summary of all periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) to determine compliance with any Applicable Requirement / federally enforceable requirement that does not directly require such monitoring.
 - (d) Summary of necessary requirements concerning use and maintenance of equipment including the installation and maintenance of monitoring equipment.
 [1203(D)(1)(c)(i iii); 1203(D)(1)(d)(i); Rule 1203(D)(1)(e)(i ii); Rule 1203(D)(1)(g)(v x)]
- 6. Owner/Operator shall promptly report all deviations from federal operating permit requirements including, but not limited to; any emissions in excess of permit conditions, deviations attributable to breakdown conditions, and any other deviations from permit conditions. Such reports shall include the probable cause of the deviation and any corrective action or preventative measures taken as a result of the deviation. [Rule 1203(D)(1)(e)(ii) and Rule 430(C)]

Prompt reporting shall be determined as follows:

(a) For deviations involving emissions of air contaminants in excess of permit conditions including but not limited to those caused by a breakdown, prompt reporting shall be within one hour of the occurrence of the excess emission or

- within one hour of the time a person knew or reasonably should have known of the excess emission. Documentation and other relevant evidence regarding the excess emission shall be submitted to the District within sixty (60) days of the date the excess emission was reported to the District. [SIP Pending: Rule 430 Breakdown Provisions as amended 12/21/94 and submitted 2/24/95]
- (b) For other deviations from permit conditions not involving excess emissions of air contaminants shall be submitted to the District with any required monitoring reports at least every six (6) months. [Rule 1203(D)(1)(e)(i)]
- 7. If any facility unit(s) should be determined not to be in compliance with any federally-enforceable requirement during the 5-year permit term, then owner/operator shall obtain a *Schedule of Compliance* approved by the District Hearing Board pursuant to the requirements of MDAQMD Regulation 5 (Rules 501 518). In addition, Owner/Operator shall submit a *Progress Report* on the implementation of the *Schedule of Compliance*. The *Schedule of Compliance* shall contain the information outlined in (b), below. The *Progress Report* shall contain the information outlined in (c), below. The *Schedule of Compliance* shall become a part of this Federal Operating Permit by administrative incorporation. The *Progress Report* and *Schedule of Compliance* shall comply with Rule 1201(I)(3)(iii) and shall include:
 - (a) A narrative description of how the facility will achieve compliance with such requirements; and
 - (b) A *Schedule of Compliance* which contains a list of remedial measures to be taken for the facility to come into compliance with such requirements, an enforceable sequence of actions, with milestones, leading to compliance with such requirements and provisions for the submission of *Progress Reports* at least every six (6) months. The *Schedule of Compliance* shall include any judicial order, administrative order, and/or increments of progress or any other schedule as issued by any appropriate judicial or administrative body or by the District Hearing Board pursuant to the provisions of Health & Safety Code §42350 et seq.; and
 - (c) Progress Reports submitted under the provisions of a Schedule of Compliance shall include: Dates for achieving the activities, milestone, or compliance required in the schedule of compliance; and dates when such activities, milestones or compliance were achieved; and an explanation of why any dates in the schedule of compliance were not or will not be met; and any preventive or corrective measures adopted due to the failure to meet dates in the schedule of compliance. [Rule 1201 (I)(3)(iii); Rule 1203 (D)(1)(e)(ii); Rule 1203 (D)(1)(g)(v)]

C. <u>FACILITYWIDE COMPLIANCE CONDITIONS:</u>

- 1. Owner/Operator shall allow an authorized representative of the MDAQMD to enter upon the permit holder's premises at reasonable times, with or without notice. [40 CFR 70.6(c)(2)(i); Rule 1203(D)(1)(g)(i)]
- Owner/Operator shall allow an authorized representative of the MDAQMD to have access to and copy any records that must be kept under condition(s) of this Federal Operating Permit.
 [40 CFR 70.6(c)(2)(ii); Rule 1203(D)(1)(g)(ii)]
- 3. Owner/Operator shall allow an authorized representative of the MDAQMD to inspect any equipment, practice or operation contained in or required under this Federal Operating Permit.

 [40 CFR 70.6(c)(2)(iii); Rule 1203(D)(1)(g)(iii)]
- 4. Owner/Operator shall allow an authorized representative of the MDAQMD to sample and/or otherwise monitor substances or parameters for the purpose of assuring compliance with this Federal Operating Permit or with any Applicable Requirement. [40 CFR 70.6(c)(2)(iv); Rule 1203(D)(1)(g)(iv)]
- 5. Owner/Operator shall remain in compliance with all Applicable Requirements / federally enforceable requirements by complying with all compliance, monitoring, record-keeping, reporting, testing, and other operational conditions contained in this Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal application.

 [1203 (D)(1)(f)(ii)]
- 6. Owner/Operator shall comply in a timely manner with all applicable requirements / federally enforceable requirements that become effective during the term of this permit. [Rule 1201 (I)(2); Rule 1203(D)(1)(g)(v)]
- 7. Owner/Operator shall insure that all applicable subject processes comply with the provisions of 40 CFR 61, *National Emission Standards for Hazardous Air Pollutants*, subpart A, *General Provisions*, and subpart M, *Asbestos*. [40 CFR 61, subparts A and M]
- 8. Owner/Operator shall notify APCO/District at least 10 working days before any applicable asbestos stripping or removal work is to be performed as required by section 61.145.b of 40 CFR 61 subpart M, *National Emission Standard for Asbestos*. [40 CFR 61.145.b]
- 9. Owner/Operator shall notify the APCO/District, on an **annual** basis, postmarked by December 17 of the calendar year, of the predicted asbestos renovations for the following

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year as required by section 61.145.b <u>of</u> 40 CFR 61, subpart M [see cite for threshold triggering and applicability]. [40 CFR 61.145.b]

PART III

EQUIPMENT SPECIFIC APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS

A. GLASS PLANT EQUIPMENT DESCRIPTION:

1. FLOAT GLASS MANUFACTURING LINE – MDAQMD PERMIT # B001726:

This unit is equipped with the "3R" system. Note that for fee purposes horsepower ratings have been converted to Btu's assuming 2550 Btu per horsepower.

Burners rated at 6.49 MMBtu/ton, 22.92 ton/h produces 129,600 CFM, total rating 148.7 MMBtu/hr

Block Cooling Fans, 2@75 hp each, one is a standby

FURNACE

Block Cooling Cans, 3@60 hp each, one is standby

Cold Well Pumps, 3@125 hp each, one is standby

Cooling Tower Fans, 2@30 hp each

Dilution Air Fans, 2@15 hp each, one is standby

Combustion Air Fans, 2@125 hp each, one is standby

Charger Drives, 2@5 hp each

Stirrer Drive (10hp)

Air Compressors, 3@150 hp each, one is standby

Tweel Drives, 2@2 hp each, one is standby (Sub-total of hp for furnace is 967.0)

TIN BATH

Ammonia Dissociator, 0.24 million Btu/h

Cooling Fans, 3@125 hp each, one is standby

Knurl Drives, 12@ 1 hp each

Vacuum Pumps, 2@1 hp each, one is standby (Sub-total of hp for Ammonia Dissociator is 263)

COLD END

Under Line Breakers, 8@5 hp each

Main Line Crusher (7.5 hp)

Main Line Crusher, 2 @ 5 hp each

End of Line Crusher (5 hp)

Conveyor Drives, 22 @ 2 hp each

Conveyor Drives, 2 @ 3 hp each

Lucor Spray equipment

Stacker, 2 @ 7.5 hp each

Stacker (3 hp)

Stacker (75 hp)

Stacker, 4 @ 5 hp each

Stacker, 8 @ 5 hp each

Edge Trim, 4 @ 1 hp each

Malic Acid Coating System:

Bleaker Brothers Spray System

Tank (100 gallon) and 5 air atomizing spray nozzles

(Sub-total of 269.5 hp for Cold End)

LEHR

Cooling Fan Motors, 2 @ 10 hp each

Cooling Fan Motors, 2 @ 15 hp each

Cooling Fan Motors, 2 @ 25 hp each

Cooling Fan Motors, 2 @ 30 hp each

Cooling Fan Motor

Cooling Fan Motor

Drive Motors, 2 @ 30 hp each, one is standby

Drive Motor (5 hp)

Lehr Heat Resistance: 4 @ 103.6 kW

2 @ 44.8 kW

2 @ 45.0 kW

1 @ 64.4 kW

2 @ 90.0 kW

2 @ 162.0 kW

(Sub-total of 425 hp and 1162.4 kW for Lehr)

- 1. Operation of the equipment described above shall be conducted in compliance with all the data and specifications submitted with the application under which this permit has been issued unless specifically exempted hereunder.
- 2. The fuel for this furnace is restricted to pipeline regulated natural gas and/or liquid petroleum gas (propane) as backup fuel. The owner/operator, o/o, shall maintain logs of raw material fed to the furnace and the fuel used for furnace operations. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
- 3. The o/o shall have in place written preventative maintenance procedures and schedules for each of the following equipment and/or systems: Scrubber, Electrostatic Precipitator, Glass Furnace, all monitoring equipment for emissions measurements, and all other monitoring equipment. Procedures and/or schedules shall be provided to District personnel on request.
- 4. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer and/or sound engineering principles consistent with the lowest practicable emissions.

- 5. This equipment shall not be operated unless it is vented air pollution control equipment operating under the following valid District permits C001796, C002792, and C004809, or under those conditions specified in condition 6 immediately below.
- 6. During routine or preventative maintenance of the add-on pollution controls and during periods of regenerator clean-out, the owner/operator shall be exempt from the emissions limits specified in condition 7 immediately below, provided the following are complied with:
 - A. Maintenance in any twelve-month period does not exceed six days (144 hours);
 - B. Maintenance shall be performed twice in any twelve-month period for not more than 72 hours for each maintenance activity, unless prior written approval from the APCO has been obtained;
 - C. Maintenance shall be conducted in a manner consistent with good air pollution practices for minimizing emissions to the atmosphere;
 - D. Procedures for each maintenance shutdown shall be submitted to the District for approval at least 10 days prior to a shutdown. If 10 days is impractical, e.g., in the case of an emergency, the o/o shall notify the District by telephone and submit the planned procedures for the maintenance as soon as practicable; and
 - E. A summary report of all findings and repairs/modifications, which were made during the shutdown, shall be submitted to the District within 15 days of completion of the maintenance shutdown.
- 7. The following are the emissions limits for this facility:
 - A. Total Suspended Particulate (TSP) emissions shall not exceed a concentration of 0.02 grains/dry SCF.
 - B. Oxides of sulfur shall not exceed a mass emission rate of 15.0 lb/hr based on a 24-hour rolling average or 45.0 lb/hr based on a 3-hour rolling average and daily emissions shall not exceed 250 pounds.
 - C. Those limits stated under District Regulations IV and IX also apply.
 - D. Oxides of nitrogen emissions shall not exceed a mass emission rate of 220 lb/hr based on a three hour rolling average and/or 200 lb/hr based on a 24-hour average.
 - E. Oxides of nitrogen shall not exceed 615 tons per year, calculated on a rolling twelvemonth basis and verified by CEMS data.
- 8. The oxides of nitrogen emissions from the diesel generator covered by District permit B008012 shall be included in the 24 hour rolling averages in condition 7(D) and the annual limit in condition 7(E) immediately above.
- 9. The o/o shall operate a Continuous Emissions Monitoring System (CEMS) as follows:
 A. To measure stack gas concentrations of oxygen, oxides of nitrogen and sulfur dioxide, specifications shall comply with USEPA specifications in 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specification 2;
 - B. The mass emissions rates of sulfur dioxide and oxides of nitrogen shall be computed using USEPA, 40 CFR 60, Appendix A, method 19. The rates shall be computed based on the concentrations measured above, the fuel flow rate and the gross calorific value of the fuel. The averaging time shall not exceed 20 minutes.

C. CEMS' Certification Test shall be conducted annually and Gas Cylinder audits shall be conducted in each of the remaining three quarters.

[Rule 204 - Permit Conditions; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77] [Rule 1157 - Boilers and Process Heaters; Version in SIP = Current, 40 CFR 52.220(c)(207)(I)(D)(3) - 5/19/97 61 FR 56470, effective 11/1/96]

- 10. The owner/operator shall conduct the following emissions compliance and certification tests:
 - A. Compliance test for TSP once every three years commencing in 1989;
 - B. Compliance test or mass balances for lead, mercury, beryllium and fluorides when their concentrations change in the raw material or the raw material changes;
 - C. Same as C. in the condition immediately above.
- 11. The o/o shall conduct all required compliance/certification tests in accordance with a District approved test protocol. This test protocol shall be submitted to the District 30 days prior to any scheduling of tests for District review and approval. Once approved the o/o shall notify the District 10 days prior to the test, so that a District observer may be present. A written report of the emissions test shall be submitted to the District no later than 45 days after the last day of on-site sampling/measurements.

2. CULLET RETURN SYSTEM – MDAQMD PERMIT # B001727:

Motors that drive the system:

Cutting Conveyors 7.5hp Cross Conveyor 3.0

Batch House Return Conveyor 15.0

Cullet Crusher 30.0 Cullet Elevator 5.0

Total hp is 60.5

- 1. This equipment shall be operated unless vented to properly functioning baghouses under valid District permits C001846, which picks up particulate matter from the Cullet Elevator, and C001913, which picks up particulate matter from the Cullet Conveyors.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emission of contaminants.

3. **SEAMING SYSTEM – MDAQMD PERMIT # B001728:**

Seaming Sander for edge of glass plates on the Tempered Safety Glass Line, which consists of 16 sanders, at 1 hp each.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This equipment shall be operated unless vented to properly functioning baghouse under valid District permits C001914.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emission of contaminants.

4. RAW MATERIAL BLENDING SYSTEM FOR FLOAT GLASS FURNACE – MDAQMD PERMIT # B001973:

Motors for each of the following:

Limestone Silo Screw Conveyor

Soda Ash Silo Screw Conveyors, 2 at 5 hp each

Dolomite Silo Screw Conveyor

Salt Cake Silo Screw Conveyor

Rouge Bin Auger Portioner

Carbon Bin Auger Portioner

Weight Batch conveyor

Batch elevator

Wetting System

Twin Drive Mixers, each at 60 hp

Mixer Lube Pump

Cross Conveyor

Carriage Conveyor

Carriage Drive

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1. This equipment shall not be operated unless vented to properly functioning baghouses under valid District permits, all of which pick up particulate matter from the sources mentioned below:

C001842 (84BVBS16IIG), from the Weight Batch Elevator;

C001843 (58BVBS9IIG), from the Weight Batch Elevator Top;

C001844 (58BVBS9IIG), from the Bad Batch Hopper; C001847 (58BVBS16IIG), from the Mixed Batch Elevator Loader; C001848 (58BVBS9IIG), from the Mixed Batch Elevator Top; and C001849 (58BVBS9IIG), from the Furnace Bin.

2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emission of contaminants.

5. <u>ELECTROSTATIC PRECIPITATOR DUST RECYCLING SYSTEM – MDAQMD PERMIT # B002460:</u>

5.0 cu ft Transporter, which collects dust from the ESP Screw Conveyor, and;

- a. 6 inch diameter air operated butterfly valve;
- b. Level controller;
- c. Two 2-inch diameter air operated lines (1 vents to the other thru air operated butterfly valve, the other connects to d. Below)
- d. A 22.5 inch two way air operated switch, which directs dust from ESP to one of 2 bins (one at a time).

Two bins of 8 ft. diameter with 10,023 gal (1340 cu ft) capacity each and equipped with:

- a. One grain thief access port;
- b. One 3-load cell continuous load level indicator system;
- c. One overflow pipe at the top of the bin closed by a manual knife gate in the down-comer to the top of No. 5 silo;
 - d. Discharge System, which can discharge one of the following three ways:
 - i. 8 inch pneumatic valve air lock, which feeds a
 - ii. 6 inch diameter screw conveyor, which feeds the weigh hopper and
 - iii. 6 inch line with manual slide gates to a truck loadout system.

Weigh Feeder System, which has

- a. Weigh hopper, 10 cu ft capacity served by 2 small baghouses and 3-load cell frame to the feeder;
- b. Feeder with variable speed, which delivers 25 lb/min (12 lb/cu ft of material) to belt conveyor.

- 1. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or proper engineering principles consistent with minimum emissions of contaminants.
- 2. The owner/operator, o/o, shall ensure that all unions, joints and other mating surfaces are properly sealed to preclude fugitive emissions. The District recognizes shrouding,

gaskets, welds and other sealing procedures as proper.

- 3. The o/o shall log the maintenance, repairs and modifications to this system, which contains at least the bags and number of replacements. This log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
- 4. The pieces of equipment described shall not be operated unless vented to properly functioning dust collectors under corresponding valid District permits as follow:
 - a. Bin No. 10 to District permit C002793; and
 - b. Bin No. 11 to District permit C002794.

6. RAW MATERIAL RECEIVING/STORING SYSTEM SERVING THE TRUCK AND RAILROAD UNLOADING – MDAQMD PERMIT # B002791:

Rouge Bin and Activator, vented to Control C001851

Charcoal Bin and Activator, vented to Control C001850

Cullet Silo vented to Control C001845

Salt Cake Silo vented to Control C001840

Limestone Silo vented to Control C001839

Dolomite Silo vented to Control C001838

Soda Ash Silo No. 2 vented to Control C001837

Soda Ash Silo No. 1 vented to Control C001837

Sand Silo No. 2 vented to Control C001836

Sand Silo No. 1 vented to Control C001836

Transfer Conveyor at 5 hp vented to Control C001725

Receiving Hopper vented to Control C001725

Enclosed Structure vented to Control C001725

Raw Material Elevator at 25 hp vented to Control C001835

Distribution Turnhead at 1 hp

Emergency Sand Silo, vented to Control C001841

- 1. This equipment shall not be operated unless vented to properly functioning controls under valid District permits, all of which pick up particulate matter from the sources described above.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emission of contaminants.

3. Trucks and railcars shall not be unloaded unless the doors at both ends of the Enclosed Receiving Structure are closed.

7. <u>DOUBLE ROW SEAMING SYSTEM - MDAQMD PERMIT # B005352:</u>

Seaming sander for edge of glass plates on the Tempered Safety Glass Line, including 4 sanding belts for sanding top and bottom edge of glass.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. Operation of this equipment shall be in strict compliance with the information submitted with this application for which this permit has been issued unless specifically exempted hereunder.
- 2. This equipment shall be operated unless vented to properly functioning baghouse under valid District permits C005355.
- 3. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emission of contaminants.

8. IC ENGINE GENERATOR, MIXED FUEL – MDAQMD PERMIT # B008012:

One Caterpillar, Natural Gas fired internal combustion engine, Model No. 3516 and Serial No. 25Z03916, After Cooled, Direct Injected, Turbo Charged, producing 2304 bhp with 16 cylinders at 1800 rpm while consuming a maximum of 113 gal/hr. This equipment powers a Generator. Control: C008034

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants.
- 3. This equipment shall be fired with a fuel mixture, with a minimum heat input contribution from natural gas of 70 percent. The remainder of the fuel mixture may be

diesel fuel whose sulfur concentration is less than or equal to 0.05 percent on a weight per weight basis. This condition may be complied with through fuel consumption and fuel supplier sulfur certification records.

- 4. This equipment shall not be operated without being exhausted into the selective catalytic reduction system with valid District permit C008034 fully functional.
- 5. Emissions from this equipment to the atmosphere shall not exceed the following emission limits:
 - a. Hourly rates, computed every 15 minutes, verified by annual compliance tests and ammonia injection data:
 - i. NOx as NO2 3.128 lb/hr (averaged over one hour)
 - ii. Ammonia Slip 10 ppmvd (corrected to 15% oxygen and averaged over three hours)
 - b. Hourly rates, verified by annual compliance tests:
 - i. VOC as CH4 0.88 lb/hr
 - ii. PM10 1.11 lb/hr
 - iii. CO 12.29 lb/hr
 - c. Daily rates, verified by fuel use and annual compliance tests:
 - i. NOx 25 lb/calendar day
 - d. Annual rates, based on a rolling 12 month summary, verified by fuel use and annual compliance tests:
 - i. NOx 5 tons/year
 - ii. VOC 2 tons/year
 - iii. PM10 2 tons/year
 - iv. CO 18 tons/year
- 6. Fuel consumption shall be monitored using a continuous monitoring system. The operator shall install, calibrate, maintain and operate this monitoring system according to a District-approved monitoring plan, and it shall be installed prior to initial equipment startup.
- 7. The o/o shall perform the following compliance tests each year beginning in 2001 in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit. The following compliance tests are required:
 - a. NOx as NO2 in lb/hr (measured per USEPA Reference Methods 19 and 20)
 - b. VOC as CH4 in lb/hr (measured per USEPA Reference Methods 25A and 18)
 - c. CO in lb/hr (measured per USEPA Reference Method 10)
 - d. PM10 in lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method
 5)
 - e. Ammonia slip in ppmvd at 15% oxygen.
- 8. The o/o shall maintain a log for this equipment, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of five (5) years and shall be provided to District personnel on request:

- a. Daily fuel consumption.
- b. Diesel fuel sulfur concentration certifications.
- 9. The emissions from this equipment, in addition to the emissions from the equipment covered by District Permit B001729, shall be included in the mass emission limits specified on District Permit B001726. The NOx emissions limits specified in B001726 shall not be exceeded by the equipment covered in all three permits; for other pollutants, the limits shall not be exceeded by this equipment and the B001726 equipment.

9. <u>BAGHOUSE (BATCH PLANT UNLOADING AREA) – MDAQMD PERMIT #</u> C001725:

A Flex-Kleen Reverse Jet model 84BVBC25IIC, driven by a 5 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 5.5:1

Total Cloth Filtering Area, 265 sq ft

ACFM, 1,460

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as Batch Plant Unloading Area under valid District permit B002791.
- 2. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 3. An operating air lock device shall be fitted on each material discharge port.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a normal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

10. <u>ELECTROSTATIC PRECIPITATOR – MDAQMD PERMIT # C001796:</u>

a United McGill, model 3-500, which serves the Float Glass Furnace, District permit B001726. This unit has 3 sections (fields) with the following electric power input

Field No. 1: 30 +/- 5 kW at 300+/-100 mA Field No. 2: 30 +/- 5 kW at 300+/-100 mA Field No. 3: 30 +/- 5 kW at 300+/-100 mA

Additionally, there are 2 Screw Conveyors under each hopper at 2 hp each and a Screw Conveyor, cross with airlock at 3 hp.

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- 1. Particulate emissions from this unit shall not exceed 0.02 gr/dSCF and/or 10.4 lb/h.
- 2. The owner/operator (o/o) shall monitor and record in a log on a daily basis, the kV and the mA of each of the Field Plates described above. This log shall be kept current, onsite for a minimum of five (5) years and provided to District personnel on request.
- 3. This unit shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.
- 4. Routine and/or preventative maintenance, which requires this unit to be off line or bypassed shall be done in accord with Condition no. 6 of District permit B001726. This condition is repeated here as follows:

During routine or preventative maintenance of the three add-on pollution controls and during periods of regenerator clean-out, the owner/operator shall be exempt from the emissions limits specified in condition 7 (of District permit B001796) provided the following are complied with:

- A. Maintenance in any twelve-month period does not exceed six days (144 hours);
- B. Maintenance shall be performed twice in any twelve-month period for not more than 72 hours for each maintenance activity, unless prior written approval from the APCO has been obtained;
- C. Maintenance shall be conducted in a manner consistent with good air pollution practices for minimizing emissions to the atmosphere;
- D. Procedures for each maintenance shutdown shall be submitted to the District for approval at least 10 days prior to a shutdown. If 10 days is impractical, e.g., in the case of an emergency, the o/o shall notify the District by telephone and submit the planned procedures for the maintenance as soon as practicable; and
- E. A summary report of all findings and repairs/modifications, which were made during the shutdown, shall be submitted to the District within 15 days of completion of the maintenance shutdown.
- 5. An operating airlock device shall be fitted and operating properly on each Material Discharge Port.

11. <u>BAGHOUSE – UNLOADING ELEVATOR TOP – MDAQMD PERMIT #</u> C001835:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as Unloading Elevator Top under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.
- 6. An operating air lock device shall be fitted on each material discharge port.

12. BAGHOUSE – TWO SAND SILOS – MDAQMD PERMIT # C001836:

A Flex-Kleen Reverse Jet model 58BVBS911G, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as two Sand Silos under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

13. BAGHOUSE – TWO SODA ASH SILOS – MDAQMD PERMIT # C001837:

A Flex-Kleen Reverse Jet model 58BVBS911G, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

- 1. This baghouse shall operate concurrently with the equipment described as two Soda Ash Silos under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this

equipment.

14. BAGHOUSE – DOLOMITE SILO – MDAQMD PERMIT # C001838:

A Flex-Kleen Reverse Jet model 58BVBS911G, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Dolomite Silo under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

15. BAGHOUSE (LIMESTONE SILO) – MDAQMD PERMIT # C001839:

Flex-Kleen reverse jet fabric dust collector, Model 58BVBS9IIG, with a/c ratio of 6.15 to 1 at 400 cfm and 16 oz glazed polypropylene cloth area of 65 sq ft, serving Limestone Silo B002791.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This fabric dust collector shall only be operated and maintained in strict accord with manufacturer's and/or supplier's recommendations and/or sound engineering principles.

- 2. The unit shall be equipped with pressure taps to allow for the measurements of pressure drop across the dust collector.
- 3. This unit is equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 4. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.
- 5. The o/o shall maintain on-site, as a minimum, an inventory of replacement bags that assures compliance with applicable District Rules in Regulation IV.

16. BAGHOUSE - SALT CAKE SILO - MDAQMD PERMIT # C001840:

A Flex-Kleen Reverse Jet model 58BVBS911G, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Salt Cake Silo under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

17. <u>BAGHOUSE – EMERGENCY SAND SILO – MDAQMD PERMIT # C001841:</u> A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1 Total Cloth Filtering Area, 65 sq ft ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Emergency Sand Silo under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

18. BAGHOUSE - WEIGH BATCH CONVEYOR - MDAOMD PERMIT # C001842:

A Flex-Kleen Reverse Jet model 58BVBS911G, driven by a 3.0 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.47:1

Total Cloth Filtering Area, 170 sq ft

ACFM, 1100

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Weigh Batch Conveyor under valid District permit B001973.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.

- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.
- 6. An operating air lock device shall be fitted on each material discharge port.

19. <u>BAGHOUSE - WEIGH BATCH ELEVATOR TOP - MDAQMD PERMIT #</u> C001843:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Weigh Batch Elevator-Top under valid District permit B001973.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

20. BAGHOUSE – BAD BATCH HOPPER – MDAQMD PERMIT # C001844: A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 2.0 hp motorized fan and

with the following specifications: Air to Cloth Ratio, 11.08:1 Total Cloth Filtering Area, 65 sq ft ACFM, 720

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Bad Batch Hopper under valid District permit B001973.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.
- 6. An operating air lock device shall be fitted on each material discharge port.

21. BAGHOUSE – CULLET BIN – MDAQMD PERMIT # C001845:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.5 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 1.54:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 100

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Cullet Bin under valid District permit B002791.

- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

22. BAGHOUSE - CULLET ELEVATOR - MDAQMD PERMIT # C001846:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Cullet Elevator under valid District permit B001727.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

23. <u>BAGHOUSE - MIXED BATCH ELEVATOR LOADER – MDAQMD PERMIT #</u> C001847:

A Flex-Kleen Reverse Jet model 58BVBS16IIG, driven by a 2.0 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 5.56:1

Total Cloth Filtering Area, 115 sq ft

ACFM, 640

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Mixed Batch Elevator Loader under valid District permit B001973.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

24. <u>BAGHOUSE – MIXED BATCH ELEVATOR TOP – MDAQMD PERMIT #</u> C001848:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 6.15:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 400

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Mixed Batch Elevator-Top under valid District permit B001973.

- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

25. BAGHOUSE – FURNACE BIN – MDAQMD PERMIT # C001849:

A Flex-Kleen Reverse Jet model 58BVBS9IIG, driven by a 0.75 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 3.69:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 240

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Furnace Bin under valid District permit B001973.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

26. BAGHOUSE (CHARCOAL BIN) – MDAQMD PERMIT # C001850:

A Flex-Kleen Reverse Jet model 58BVBS16IIG, driven by a 0.75 hp motorized fan and

with the following specifications: Air to Cloth Ratio, 5.22:1 Total Cloth Filtering Area, 115 sq ft ACFM, 600

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Charcoal Bin under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

27. BAGHOUSE (ROUGE BIN) – MDAQMD PERMIT # C001851:

A Flex-Kleen Reverse Jet model 58BVBS16IIG, driven by a 1.5 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 5.22:1

Total Cloth Filtering Area, 65 sq ft

ACFM, 600

Bags, of 16-ounce Glazed Polypropylene, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Rouge Bin under valid District permit B002791.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure

compliance with applicable rules of District Regulation IV.

- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

28. BAGHOUSE - CULLET RETURN SYSTEM - MDAQMD PERMIT # C001913:

A Flex-Kleen Reverse Jet model FKO-12-91-30715, type 100WMTM Z10 ARRIII, driven by a 100 hp motorized fan and with the following specifications:

Air to Cloth Ratio, 7:1

Total Cloth Filtering Area, 4430 sq ft

ACFM, 31,000

Bags, 210 whose dimensions are 6 in diameter by 144 in long. These bags are designed to be operated between 2 and 8 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Cullet Return System under valid District permit B001727.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 8" of water.
- 4. The owner/operator (o/o) shall have a preventative maintenance plan for this equipment.
- 5. The maintenance log for this baghouse shall be maintained on-site for five (5) years and be made available to the District upon request.

29. <u>BAGHOUSE – TEMPERED SAFETY GLASS LINE – MDAQMD PERMIT #</u> C001914:

A Torit, model TJ-460-155, driven by a 15. hp motorized fan and with the following specifications:

Air to Cloth Ratio, 5.95:1

Total Cloth Filtering Area, 470 sq ft ACFM, 2800

Bags, 50 of Polyester Felt, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Tempered Safety Glass Line under valid District permit B001728.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.
- 6. An operating air lock device shall be fitted on each material discharge port.

30. SCRUBBER - DRY SPRAY FOR SULFUR DIOXIDE CONTROLLING THE FLOAT GLASS FURNACE (DISTRICT PERMIT B001726) – MDAQMD PERMIT # C002792:

A United McGill unit, with the following design characteristics: Scrubbing Solution is aqueous 1.5% sodium carbonate; Flow rate of 2-6 gal/min; there are 2 Water Pumps, one standby each at 15 hp; there are 2 Slurry Pumps, one standby, each at 3 hp; there are one storage tank mixer and one slurry tank mixer, each at 1/3 hp and one feeder to the mixer at 1/4 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This unit shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.

2. Routine and/or preventative maintenance, which requires this unit to be off line or bypassed shall be done in accord with Condition no. 6 of District permit B001726. This condition is repeated here as follows:

During routine or preventative maintenance of the three add-on pollution controls and during periods of regenerator clean-out, the owner/operator shall be exempt from the emissions limits specified in condition 7 (of District permit B001796) provided the following are complied with:

- A. Maintenance in any twelve-month period does not exceed six days (144 hours);
- B. Maintenance shall be performed twice in any twelve-month period for not more than 72 hours for each maintenance activity, unless prior written approval from the APCO has been obtained;
- C. Maintenance shall be conducted in a manner consistent with good air pollution practices for minimizing emissions to the atmosphere;
- D. Procedures for each maintenance shutdown shall be submitted to the District for approval at least 10 days prior to a shutdown. If 10 days is impractical, e.g., in the case of an emergency, the o/o shall notify the District by telephone and submit the planned procedures for the maintenance as soon as practicable; and
- E. A summary report of all findings and repairs/modifications, which were made during the shutdown, shall be submitted to the District within 15 days of completion of the maintenance shutdown.
- 3. This unit shall not be operated unless it is vented to properly functioning Electro-Static Precipitator under valid District permit number C001796.

31. <u>BAGHOUSE – ESP DUST RECYCLING SYSTEM BIN NO. 10 – MDAQMD PERMIT # C002793:</u>

A Nol-Tec, model 84NT25, driven by a 7.5 hp motorized fan and with the following specifications:

Air to Cloth Ratios, Receiving Materials 3.77:1 @ 1000 dSCFM; Discharge to Weigh Feeder 0.21:1 @ 55dSCFM; Discharge to Trucks 6.04:1 @ 1600 dSCFM;

Total Cloth Filtering Area, 265 sq ft

ACFM, see above

Bags, 25 of 16 ounce felted polyester, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the ESP Dust Recycling System under valid District permit B002460.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure

compliance with applicable rules of District Regulation IV.

- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

32. <u>BAGHOUSE – ESP DUST RECYCLINE SYSTEM BIN NO. 11 – MDAQMD PERMIT # C002794:</u>

A Nol-Tec, model 84NT25, driven by a 7.5 hp motorized fan and with the following specifications:

Air to Cloth Ratios, Receiving Materials 3.77:1 @ 1000 dSCFM; Discharge to Weigh Feeder 0.21:1 @ 55dSCFM; Discharge to Trucks 6.04:1 @ 1600 dSCFM; Total Cloth Filtering Area, 265 sq ft

ACFM, see above

Bags, 25 of 16 ounce felted polyester, designed to be operated between 2 and 6 inches of water gauge pressure.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the ESP Dust Recycling System under valid District permit B002460.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

33. <u>BAGHOUSE – FLOAT GLASS MFG LINE (OXY DRY) – MDAQMD PERMIT #</u> C004809:

A Torit Donaldson, model ECB-1, serial no. IG415898 driven by a 5.0 hp motorized fan and with the following specifications:

Air to Cloth Ratios, 3.3:1

Total Cloth Filtering Area, 1256 sq ft/cartridge

ACFM, 4,500

Filter type: 8PP-21347-00 Ultra Web.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the equipment described as the Float Glass Manufacturing Line under valid District permit B001726.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.
- 4. This unit shall be equipped with a gauge to measure the pressure drop across the dust collector. The unit shall be operated within a nominal range between 2" and 6" of water.
- 5. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

34. BAGHOUSE FOR DOUBLE ROW SEAMERS – MDAQMD PERMIT # C005355: Torit Downflo, Model DFT 2-8, 8 ultra-web filters, 13.84 " dia. x 26" l, 2032 sq. ft., 400 cfm.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. This baghouse shall operate concurrently with the Tempered Safety Glass Line under valid District permit B005352.
- 2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
- 3. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

4. The owner/operator (o/o) shall have a preventative maintenance program for this equipment.

35. <u>SELECTIVE CATALYTIC REDUCTION UNIT – MDAQMD PERMIT #</u> C008034:

Selective catalytic reduction system consisting of a catalyst and an ammonia injection system. Manufacturer, model and serial numbers will be specified when available. PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.
- 3. This equipment shall be operated concurrently with the IC engine generator covered in valid permit B008012.
- 4. Ammonia shall be injected whenever the selective catalytic reduction system has reached or exceeded 550 degrees Fahrenheit except for periods of equipment malfunction. Except during periods of startup, shutdown and malfunction, ammonia slip shall not exceed 10 ppmv dry at 15% oxygen, averaged over three hours.
- 5. Ammonia injection by this equipment in pounds per hour shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District personnel on request.

36. EMERGENCY IC ENGINE DUAL FUEL – MDAQMD PERMIT # E001729: This engine has installed a CLI Worldwide, Inc. natural gas/diesel fuel conversion system. One Cummins, Diesel fired internal combustion engine, Model No. KTA 50 G 1 and Serial No. 33112241, producing 1490 bhp with 12 cylinders at 2200 rpm while consuming a maximum of _____. This equipment powers a _____. PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless

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otherwise noted below.

- 2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants.
- 3. This unit shall be limited to use for emergency power, defined as when commercially available power has been interrupted, and as part of a testing program, which does not exceed 60 minutes of operation per week.
- 4. The owner/operator (o/o) shall use only diesel fuel whose sulfur concentration is less than or equal to 0.05% on a weight per weight basis in this unit.
- 5. The o/o shall maintain a log for this unit, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of five (5) years and shall be provided to District personnel on request:
 - a. Date of each use;
 - b. Duration of each use, in minutes;
 - c. Fuel consumed during each calendar year, in gallons;
 - d. Fuel sulfur concentration (the o/o may use the supplier's certification of Sulfur content if it is maintained as part of this log).
- 6. This equipment shall use no other fuels but diesel and/or natural gas (CNG) without the prior written approval of the APCO.

PART IV STANDARD FEDERAL OPERATING PERMIT CONDITIONS

A. STANDARD CONDITIONS:

- 1. If any portion of this Federal Operating Permit is found to be invalid by the final decision of a court of competent jurisdiction the remaining portion(s) of this Federal Operating Permit shall not be affected thereby.

 [40 CFR 70.6(a)(5); Rule 1203(D)(1)(f)(i)]
- 2. Owner/Operator shall comply with all condition(s) contained herein. Noncompliance with any condition(s) contained herein constitutes a violation of the Federal Clean Air Act and of MDAQMD Regulation XII and is grounds for enforcement action; termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal of this Federal Operating Permit.

 [40 CFR 70.6(a)(6)(i); Rule 1203(D)(1)(f)(ii)]
- 3. It shall not be a defense in an enforcement action brought for violation(s) of condition(s) contained in this Federal Operating Permit that it would have been necessary to halt or reduce activity to maintain compliance with those condition(s).

 [40 CFR 70.6(a)(6)(ii); Rule 1203(D)(1)(f)(iii)]
- 4. This Federal Operating Permit may be modified, revoked, reopened or terminated for cause.

 [40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(iv)]
- 5. The filing of an application for modification; a request for revocation and re-issuance; a request for termination; notifications of planned changes; or anticipated noncompliance with condition(s) does not stay the operation of any condition contained in this Federal Operating Permit.

 [40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(v)]
- 6. The issuance of this Federal Operating Permit does not convey any property rights of any sort nor does it convey any exclusive privilege.

 [40 CFR 70.6(a)(6)(iv); Rule 1203(D)(1)(f)(vi)]
- 7. Owner/Operator shall furnish to the MDAQMD, within a reasonable time as specified by the MDAQMD, any information that the MDAQMD may request in writing. [40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(vii)]
- 8. Owner/Operator shall furnish to District, state or federal personnel, upon request, copies of any records required to be kept pursuant to condition(s) of this Federal Operating Permit.

 [40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(viii)]
- 9. Any records required to be generated and/or kept by any portion of this Federal Operating

Permit shall be retained by the facility Owner/Operator for at least five (5) years from the date the records were created.

[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)]

- 10. Owner/Operator shall pay all applicable fees as specified in MDAQMD Regulation III, including those fees related to permits as set forth in Rules 301 and 312. [40 CFR 70.6(a)(7); Rule 1203(D)(1)(f)(ix)]
- Owner/Operator shall not be required to revise this permit for approved economic incentives, marketable permits, emissions trading or other similar programs provided for in this permit.
 [40 CFR 70.6(a)(8); Rule 1203(D)(1)(f)(x)]
- 12. Compliance with condition(s) contained in this Federal Operating Permit shall be deemed compliance with the Applicable Requirement underlying such condition(s). The District clarifies that "only" Applicable Requirements listed & identified elsewhere in this Title V Permit are covered by this Permit Shield and does not extend to any unlisted/unidentified conditions pursuant to the requirements of 40 CFR 70.6(f)(1)(i). [40 CFR 70.6(f)(1)(i); Rule 1203(G)(1)]
- 13. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit the emergency powers of USEPA as set forth in 42 U.S.C. §7603. [40 CFR 70.6(f)(3)(i); Rule 1203(G)(3)(a)]
- 14. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit liability for violations which occurred prior to the issuance of this Federal Operating Permit.

 [40 CFR 70.6(f)(3)(ii); Rule 1203(G)(3)(b)]
- 15. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to alter any Applicable Requirement Contained in the Acid Rain Program.

 [40 CFR 70.6(f)(3)(iii); Rule 1203(G)(3)(c)]
- 16. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit the ability of USEPA or the MDAQMD to obtain information pursuant to other provisions of law including but not limited to 42 U.S.C. §7414. [40 CFR 70.6(f)(3)(iv); Rule 1203(G)(3)(d)]
- 17. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to emissions trading pursuant to provisions contained in an applicable State Implementation Plan.

 [40 CFR 70.4(b)(12)(ii)(B); Rule 1203(G)(3)(e)]
- 18. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to changes made which are not expressly allowed by this Federal Operating Permit. [40 CFR 70.4(b)(14)(iii); Rule 1203(G)(3)(f)]

- 19. The Permit Shield set forth in Part IV, condition 12, shall not be construed to apply to changes made pursuant to the Significant Permit Modification provisions until such changes are included in this Federal Operating Permit.

 [40 CFR 70.5(a)(1)(ii), 70.7(e)(2)(vi); Rule 1203 (G)(3)(g)]
- 20. If Owner/Operator performs maintenance on, or services, repairs, or disposes of appliances, Owner/Operator shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. These requirements are Federally Enforceable through this Title V Permit.

 [40 CFR Part 82, Subpart F]
- 21. If Owner/Operator performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), Owner/Operator shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. These requirements are Federally Enforceable through this Title V Permit. [40 CFR Part 82, Subpart B]
- 22. Notwithstanding the testing requirements contained elsewhere in this Title V Permit, any credible evidence may be used to establish violations, including but not limited to; reference test methods, engineering calculations, indirect estimates of emissions, CEMS data, and parametric monitoring data. Data need not be required to be collected in a Title V permit in order to be considered credible.

 [Section 113(a) of the Clean Air Act]

PART V OPERATIONAL FLEXIBILITY

A. <u>ALTERNATIVE OPERATING SCENARIO(S):</u>

No additional Operational Flexibility provisions allowed without appropriate permit modifications.

PART VI CONVENTIONS, ABREVIATIONS, DEFINITIONS

A. The following referencing conventions are used in this Federal Operating Permit:

40CFR60, Standards of Performance for New Stationary Sources (NSPS)

40CFR60, Appendix F, Quality Assurance Procedures

40CFR61, National Emission Standards for Hazardous Air Pollutants (NESHAPS)

40CFR61, Subpart M, National Emission Standards for Asbestos

40CFR72, Permits Regulation (Acid Rain Program)

40CFR73, Sulfur Dioxide Allowance System

40CFR75, Continuous Emission Monitoring

40CFR75, Subpart D, Missing Data Substitution Procedures

40CFR75, Appendix B, Quality Assurance and Quality Control Procedures

40CFR75, Appendix C, Missing Data Estimating Procedures
40CFR75, Appendix D, Optional SO₂ Emissions Data Protocol

40CFR75, Appendix F, Conversion Procedures

40CFR75, Appendix G, Determination of CO₂ Emissions

B. Other conventions:

- 1. Unless otherwise noted, a "day" shall be considered a 24 hour period from midnight to midnight (i.e., calendar day).
- 2. The process unit identifications represent the District permit number designations. These numbers are not sequential. The use of District permit numbers provides continuity between the District and Federal Operating Permit systems.

C. Abbreviations used in this permit are as follows:

CFR Code of Federal Regulations APCO Air Pollution Control Officer

bhp brake horse power Btu British thermal units

CCR California Code of Regulations

CEMS continuous emissions monitoring system

 $\begin{array}{cc} CO & carbon \ monoxide \\ CO_2 & carbon \ dioxide \end{array}$

District Mojave Desert Air Quality Management District (formed July 1993)

MDAQMD Mojave Desert Air Quality Management District (formed July 1993)

MD Mojave Desert Air Quality Management District (formed July 1993)

SB San Bernardino County APCD (1975 to formation of MDAQMD)

gr/dscf grains per dry standard cubic foot

gpm gallons per minute gph gallons per hour hp horse power

H&SC California Health and Safety Code

lb pounds

lb / hr pounds per hour

lb / MM Btu pounds per million British thermal units

MM Btu million British thermal units

MM Btu/hr million British thermal units per hour

MW Megawatt electrical power MW(e) net net Megawatt electrical power

NH₃ ammonia

NMOC non-methane organic compounds

NO_x oxides of nitrogen NO₂ nitrogen dioxide

 O_2 oxygen

pH pH (acidity measure of solution)

PM₁₀ particulate matter less than 10 microns aerodynamic diameter

ppmv parts per million by volume

psig pounds per square inch gauge pressure

QA quality assurance rpm revolutions per minute RVP Reid vapor pressure

SCAQMD South Coast Air Quality Management District

scfm standard cubic feet per minute
scfh standard cubic feet per hour
SIC Standard Industrial Classification
SIP State of California Implementation Plan

 $\begin{array}{lll} SO_x & oxides \ of \ sulfur \\ SO_2 & sulfur \ dioxide \\ tpy & tons \ per \ year \\ TVP & true \ vapor \ pressure \end{array}$